

BEFORE THE UNITED STATES DEPARTMENT OF TRANSPORTATION
PIPELINE AND HAZARDOUS MATERIALS SAFETY ADMINISTRATION
WASHINGTON, D.C. 20590

Hazardous Materials: Enhancing Rail
Transportation Safety and Security for
Hazardous Materials Shipments

Docket No. PHMSA-RSPA-
2004-18730

**COMMENTS OF THE
PEOPLE OF THE STATE OF CALIFORNIA
AND THE
CALIFORNIA PUBLIC UTILITIES COMMISSION**

LIONEL B. WILSON
JASON ZELLER
PATRICK S. BERDGE

Attorneys for the People of the State of
California and the California Public Utilities
Commission

505 Van Ness Avenue, Rm. 4300-G
San Francisco, CA 94102
Phone: (415) 703-1519
Fax: (415) 703-4432

May 15, 2008

I. INTRODUCTION

On April 16, 2008, the United States Department of Transportation (“U.S.D.O.T.”) and the U.S. Department of Homeland Security (“U.S.D.H.S.”) issued an Interim Final Rule (“Rule”) concerning the routing of railroad trains containing certain hazardous materials (49 C.F.R. 172 et seq.).¹ Included in these materials were gases defined as “poisonous by inhalation,” under 49 C.F.R. Part 171.8, and designated as Toxic by Inhalation (“TIH”) (49 C.F.R. 107.601 (a) (3)). The U.S.D.O.T. and the U.S.D.H.S. invited comments to this Rule.

The California Public Utilities Commission (“Commission”) exercises rail safety oversight over railroads in California under the California Public Utilities Code and under the State Participation Plan with the Federal Railroad Administration (“FRA”), 49 Code of Federal Regulations (“C.F.R.”), Parts 212.1 et seq. The State of California and the Commission have had a long-standing interest in the transportation of hazardous materials by rail.² Because of this commitment to the improvement of state and federal laws and regulations concerning the transportation of hazardous materials by rail and under the previously-mentioned authority, the Commission respectfully submits these comments.

¹ The Interim Final Rule applies to (1) Class 7 radioactive materials, (2) Division 1.1, 1.2, 1.3 explosives, (3) materials poisonous or toxic by inhalation, including Division 2.3 gases and Division 6.1 materials, and (4) a select agent or toxin regulated by the Centers for Disease Control and Prevention under 49 C.F.R. Part 73. See 73 F.R. 20752 (April 16, 2008) at p. 20757. See also: the definition of hazardous materials “poisonous by inhalation” at 49 C.F.R. Part 107.8.

² See: *Investigation on the Commission's own motion into the causes of recent derailments of Southern Pacific Transportation Company trains, compliance of Southern Pacific with applicable laws, rules and regulations, the existence of any local safety hazards, and recommendations for improvements in state and federal laws or regulations*, D.94-12-001, 57 CPUC2d 572, 1994 Cal. PUC LEXIS 1099 (Dec. 1, 1994), *Re Mitigation of Local Rail Safety Hazards Within California*, D.97-09-045 (Sept. 3, 1997), stayed by D.97-12-020, 78 CPUC2d 228, 1997 Cal. PUC LEXIS 1106 (Dec. 16, 1997), and *Union Pac. R.R. v. Cal. Pub. Util. Comm'n*, 346 F.3d 851 (9th Cir. 2003).

II. BACKGROUND

In the Settlement Agreement adopted by the U.S. District Court in *Union Pacific Railroad Co. v. CPUC*, Case No. 07-cv-001 (E.D. Cal. June 1, 2007), the Commission acknowledges that:

The federal Hazardous Materials Transportation Act (“HMTA”), as supplemented by Section 1711 of the Homeland Security Act of 2002 (“HSA”), provides that the Secretary of Transportation “shall prescribe regulations for the safe transportation, *including security*, of hazardous materials in intrastate, interstate and foreign commerce.” 49 U.S.C. Section 5103(b) (1) (*emphasis added*). The Department of Transportation promulgated hazardous material transportation security regulations in 2003, which are codified at 49 CFR Part 172, subparts H and I (commonly referred to as “HM-232”).

Union Pacific Railroad Co. v. CPUC, *supra*, Final Judgment at p. 11 (May 30, 2007).³

The regulation of the safety and security of hazardous materials transportation by railroad lies exclusively within the jurisdiction of U.S.D.O.T. and the U.S.D.H.S. However, at least to the extent that states participate in State Participation Plans with the FRA under 49 U.S.C. Section 20105, the states’ FRA-certified railroad safety inspectors may participate in safety and security inspections and surveillance required under federal law. *Union Pacific Railroad Co. v. CPUC*, *supra*, Final Judgment at p. 12. Any representative of the State of California with a clearance check and a need-to-know may have access to Sensitive Security Information (“SSI”) contained within railroad Security Plans and Risk Vulnerability Assessments. *Id.* at 13. State representatives must comply with the confidentiality requirements imposed by federal SSI regulations.

³ The Final Judgment in this proceeding concludes the legal challenges of the UP and BNSF Railway described in UP’s February 20, 2007 comments in TSA-2006-26514, at page 9.

III. THE USDOT'S INTERIM FINAL RULE CONCERNING THE ROUTING OF TRAINS CONTAINING CERTAIN HAZARDOUS MATERIALS

Under the Rule, railroads transporting explosives, Class 7 radioactive material, Center for Disease Control and Prevention ("CDC") regulated agents and toxins, and TIH, must *inter alia*:

- 1) compile information and data on the commodities transported, including the routes over which these commodities are transported;
- 2) use the data they compile and relevant information from state, local, and tribal officials, as appropriate, regarding security risks to high-consequence targets along or in proximity to a route to analyze the safety and security risks for each route used and practicable alternative routes to the route used;
- 3) use these analyses to select the safest and most secure practicable route for the specified hazardous materials. In selecting the safest and most secure route⁴ for the designated hazardous materials, the railroad must:
 - a) consider relevant information from state, local, and tribal officials, as appropriate, regarding security risks to high-consequence targets along or in proximity to a route used to transport security sensitive materials. Railroads should work with state and local governments when conducting the route safety and security analysis required by this interim final rule and in making routing decisions based on that analysis, sharing information as necessary and appropriate to enable state and local governments to provide meaningful input into the process;
 - b) consider "high consequence target" as defined to mean a property, natural resource, location, area, or other target designated by the Secretary of Homeland Security that is a viable target of national significance for which an attack by railroad could result in catastrophic loss of life, significant damage to national security or defense capabilities, or national economic harm; and
 - c) consider population density along the route, close proximity to iconic buildings, landmarks, or environmentally-sensitive or environmentally-significant areas, venues along the route (stations, events, places of congregation), emergency response capability along the route, measures and countermeasures already in place to address

⁴ The safest and most secure route must necessarily include a determination of its commercial practicability. 73 F.R. 20752 at 20760.

apparent safety and security risks, and areas of high consequence along the route.

- 4) Finally, the railroads should select and use the route with the lowest overall safety and security risk.

IV. DISCUSSION

This Rulemaking will provide significantly greater protections in the transportation by rail of at least a certain subset of hazardous materials transported by rail (see footnote 1, *supra*).

A. Limiting the Selection of Safe and Secure Railroad Routes to Explosives, Class 7 Radioactive material, CDC regulated Agents and Toxins, and TIH Substances Does Not Provide the Safest and Most Secure National Rail Routes

The Rule will improve the safety and security of the transportation of explosives, Class 7 radioactive material, CDC regulated agents and toxins, and TIH by rail. Nevertheless, it does not adequately protect the public from catastrophic accidents and terrorist acts against critical national resources in the transportation of hazardous materials by rail. It is only a half-way measure that must be broadened to properly protect U.S. citizens and critical U.S. resources.

One intercontinental railroad mainline passes directly over the Upper Sacramento River in California. That river, along with the much smaller San Joaquin River, provides approximately 40 percent of California's 37 million plus residents with fresh water. San Francisco Estuary Project's (established in 1987 under the federal Clean Water Act's Section 320), *Comprehensive Conservation Management Plan* (2007), at p. 54.⁵ These two primary water sources provide water to both southern and northern California. Twice, in 1979 and 1991, the Upper Sacramento River was badly damaged and polluted by toxic solvents and/or herbicides caused by derailed tank cars falling into it at the Cantara Loop, the sharpest curve with the steepest grade on a mainline in the state. In 1991, all life in—and immediately next to—the River was extinguished; residents and emergency

⁵ http://sfep.abag.ca.gov/pdfs/Final_CCMP.pdf

responders were exposed to toxic gases requiring medical treatment. But as dangerous as the release of metam sodium was, or TIH hazardous materials might prove to be, at the Cantara Loop, they pale in comparison to a radioactive release or CDC regulated toxin release into the Upper Sacramento River that could have contaminated 40 percent of California's total water supply for long period of time—a specter at least as disastrous as a major earthquake or firestorm striking the state. Further, the Commission notes that Marine Pollutants,⁶ such as metam sodium, are not included in the Rule.

1. The NPRM improperly placed the burden on commenters to demonstrate a need for additional hazardous materials to be included in the list of those requiring routing analysis.

The Rule states that that the NPRM sought comments “as to whether the proposed requirements should also apply to...hazardous materials that could cause serious environmental damage if released into rivers or lakes.” 73 F.R. 20752, at 20758. Actually, commenters were “asked to identify which additional materials (if any) should be subject to enhanced safety or security requirements and discuss the types of requirements appropriate to address the risks posed by an intentional or accidental release of the product.”

By asking prospective commenters to select individual toxic substances to add to U.S.D.O.T.'s selected list and, further, by asking commenters to provide specific types of requirements to address overall risks of intentional or accidental release, U.S.D.O.T. obscured the fundamental problem created by a whole host of hazardous materials that could poison cities, natural resources such as rivers and lakes, and damage iconic buildings and national landmarks, etc. For example, numerous mainlines run over or near major sources of fresh water in the U.S. which are at risk through the derailment and/or destruction of rail cars carrying toxic poisons. Yet, this broader inquiry was specifically avoided by U.S.D.O.T. by requiring commenters to present justifications for adding to the list of selected hazardous materials.

⁶ 49 C.F.R. Part 172.101, App. B.

Further, the City of Cleveland, Ohio, did propose to broaden U.S.D.O.T.'s selection of hazardous materials to be included in route analyses such as select agents or toxins regulated by the CDC under 49 C.F.R. Part 172, Subpart F, which was subsequently added by U.S.D.O.T. The City of Cleveland also recommended that hazardous materials that could cause serious environmental damage if released into rivers and lakes should be added to the select list. City of Cleveland, Ohio, February 17, 2007 comments at p. 2. The City of Cleveland noted that, "the importance of protecting the environment appears to be undervalued in the proposed rules." Ibid.

By failing to identify the greater problem of the release of any of the hazardous materials listed in 49 C.F.R. Part 172.101, U.S.D.O.T. does the U.S. public a substantial disservice. As the Rule notes, the serious catastrophe in 2005 at Graniteville, South Carolina, resulted from "the puncture of a single tank car of chlorine" causing the death of "nine people and [the injury of] 554 more. In addition, the accident necessitated the evacuation of more than 5,400 people...with total costs associated with the Graniteville accident...[of] almost \$ 126 million." 73 F.R. 20752, at 20769. While the tank car in Graniteville carried chlorine, the tank car at the Cantara Loop carried a deadly marine pollutant⁷ that poisoned the Upper Sacramento River in California. The accident in 1991 at the Cantara Loop killed all life in the River south to Shasta Lake, destroying the local fishing industry and resulting in damages of \$ 71 million.

2. U.S.D.O.T.'s hazardous materials analysis fails to address the potential consequences of a release of the hazardous materials listed under 49 C.F.R. Part 172.101 which are not included in the Rule but which are dangerous substances.

The Rule states that the selected hazardous materials "present the greatest rail transportation safety and security risks—because of the potential consequences of an unintentional release of these materials—and the most attractive targets for terrorists—because of the potential for these materials to be used as weapons of opportunity or

⁷ Metam sodium, 49 C.F.R. Part 172.101, App. B.

weapons of mass destruction.” Id. at 20757. Aside from this unsupported conclusion, there is no discussion concerning the potential consequences of the release of:

- 1) Flammable gases (class 2) Explosive potential
- 2) Flammable liquids (class 3)
- 3) Hydrogen peroxide over 60 % (Class 5)
- 4) Ammonia Nitrate (class 5) used to make bombs when mixed with diesel fuel or another accelerant
- 5) Any Class 6 material (poisons)
- 6) Most Class 8 material (corrosives)
- 7) Marine Pollutants - Danger to aquatic life and plants

The City of Las Vegas, Nevada, recommended adding most of these materials to U.S.D.O.T.’s selected list of hazardous materials for purposes of railroad route analysis. U.S.D.O.T. chose, without adequate explanation, not to include these hazardous materials.

Additionally, there is no discussion of the potential consequences to the release of any of the other hazardous materials listed in the table at 49 C.F.R. Part 172.101. Further, the fact that chlorine and anhydrous ammonia represents about 80 percent of the TIH shipped by railroads (id. at 20761) does not provide a sufficient basis for determining that the public does not need to be protected from a release of hazardous materials not included in the Rule. See footnote 1, *supra*. Those other materials are included in U.S.D.O.T.’s hazardous materials list for transportation by rail because they are, in fact, dangerous and pose a risk to human health and safety. Yet, the U.S.D.O.T. does not explain how these other hazardous materials are of little or no consequence if released.

Ms. Cynthia Hilton, Executive Vice President of the Institute of Makers of Explosives testified before U.S.D.O.T. that the Rule’s list of hazardous materials “may not be complete,” that other hazardous materials may far exceed the risk posed by TIH, and that U.S.D.O.T. should provide greater “transparency” in its selection of hazardous

materials to be used in the routing analysis. Transcript of the Public Meeting Held on February 1, 2007 at 9:25 a.m., at pp. 36-37.

The materials selected by U.S.D.O.T. to be used in route analysis would potentially have prevented a catastrophe like that at Graniteville, South Carolina, from happening in a High Threat Urban Area (“HTUA”) under the Rule, but it would not have protected Graniteville (a small town with a population of about 7,000 which is not identified by U.S.D.O.T. as a HTUA) and it will not protect against a catastrophic release of other hazardous materials in a HTUA. Why the materials selected by U.S.D.O.T. (see footnote 1, *supra*) are the only hazardous materials included in the Rule’s analysis is not evident on the record.

B. The USDOT’s Threat Assessment Does Provide a Starting Point for Discussing the Balancing of TIH Threats against the Needs of Interstate Rail Commerce

No one can reasonably dispute the goal of the Rule, i.e., railroads shall select the safest and most secure route for the transportation of TIH. Likewise, there can be no reasonable disagreement concerning the railroad’s duty to make an informed decision, balancing all relevant factors and the best information available. The Commission strongly supports the Rule’s direction to cooperate with state, local, and tribal governments in determining high-consequence security risks and targets along railroad routes. The safety and security risks mentioned earlier, “population density along the route, close proximity to iconic buildings, landmarks, or environmentally-sensitive or environmentally-significant areas, venues along the route (stations, events, places of congregation),” are reasonable and valuable considerations in protecting public safety and security.

Also, the Commission strongly supports the Rule’s requirement that railroads perform these safety and security route assessment reviews on an annual basis. But a thorough and careful risk assessment of the vulnerabilities in rail corridors need not ban movement of hazardous materials by rail altogether. The difficulty, however, comes in determining the safest and most secure “practicable” or “commercially practicable route.”

C. The USDOT Fails to “Carefully” Weigh the Costs of Toxic Releases against the Cost to Interstate Rail Commerce Thereby Placing the U.S. Public at Unnecessary Risk

The Rule describes “a practicable alternative route” as “one that may be utilized by the railroad within the limits of the railroad's particular operating constraints and, further, is economically viable given the economics of the commodity, route, and customer relationship.” 73 F.R. 20752, at 20760. Further, U.S.D.O.T. qualifies the safety and security evaluation or assessment to be made by the railroad by rejecting any “alternative route [which] would significantly increase a carrier’s operating costs, as well as the costs to its customers...” Id. at 20760 – 20761. U.S.D.O.T.’s failure to consider the overall cost in damages to locations of high population density, of environmental significance and value, as well as iconic buildings and landmarks, from damage from the release of hazardous materials (even those selected by U.S.D.O.T.) skews the economic analysis from the start. While it may be reasonable to exclude routes over which railroads have no authority to operate (id. at 20761)⁸, it is neither reasonable nor prudent to begin the analysis by making costs to railroads and shippers the ultimate determinant, i.e., excluding the overall costs and damages to the nation and its population in general.

D. California’s Concerns in particular and the West’s Concerns in general

The western United States generally has less average yearly rainfall than other parts of the country. The scarcity of water leads to a greater dependency on primary water sources than in other areas of the country. Furthermore, the West is dependent to a greater extent on annual snowpack to store and deliver fresh water to its residents. This in turn results in vulnerable points at the headwaters of an essential California water source where an accidental spill, or intentional terrorist attack, could potentially contaminate that primary water source, catastrophically affecting most Californians.

⁸ Railroads, however, must consider their interchange agreements with other railroads. (Ibid.)

For instance, if the fresh water produced from the Sierra snowmelt is contaminated by a spill of hazardous materials before it gets to the California Delta or the California Central Valley Water Project, a majority of Californians could be severely harmed. “Two-thirds of California’s population (more than 20 million people) gets at least part of its drinking water from the Delta.” *Delta Subsistence in California*, U.S. Geological Survey, FS-005-00, April 2000, at p. 2. The Cantara Loop is located at one such vulnerable headwater. It lies north of Shasta Lake, north of the City of Sacramento, and, of course, north of the California Delta, all of which provides fresh water to 20 million Californians.

The cost of choosing an alternative hazardous materials route to the Union Pacific Railroad’s Shasta—Black Butte mainline to the Upper Sacramento River, or the Feather River mainline to the Sacramento River, would be very cost-effective when viewed in light of significant damage to the total water resources of California’s Upper Sacramento River, Lake Oroville, and the Delta. Significant contamination to the California Delta water supply would threaten the delivery of clean water to 40 percent of California households (see footnote 5 *supra*). Yet, the U.S.D.O.T.’s alternative railroad route analysis concerns only certain explosives, some radioactive materials, and TIH such as chlorine or anhydrous ammonia, instead of all dangerous toxic materials transported by railroads and then, only when it is economically “practicable” for the railroad to consider such an alternate.

V. CONCLUSION

The Commission applauds U.S.D.O.T.’s intent in promulgating the Rule in this proceeding. The basic route analysis provides a valuable and necessary tool in reducing serious injury and damages from certain hazardous materials releases (explosives, Class 7 radioactive material, CDC regulated agents and toxins, and TIH). Unfortunately, the Rule does not include other equally damaging hazardous materials such as flammable gases, flammable liquids, hydrogen peroxide over 60 percent, ammonia nitrate (class 5), class 6 materials (poisons), class 8 materials (corrosives), and certain marine pollutants, and does not require rerouting of U.S.D.O.T.’s more limited selection of hazardous materials if the

alternative route is not “practicable” economically for the railroad rather than the nation and its citizens. The test of practicability applies solely to the railroads’ economics; there is no attempt to balance the costs to the railroads against the potential costs to the nation in general. The Rule does not protect the nation’s resources or population adequately as it is presently written.

Respectfully submitted,

LIONEL B. WILSON
JASON ZELLER
PATRICK S. BERDGE

By: PATRICK S. BERDGE

Patrick S. Berdge
Attorneys for the People of the State of
California and the California Public Utilities
Commission

505 Van Ness Avenue, Rm. 4300-G
San Francisco, CA 94102
Phone: (415) 703-1519
Fax: (415) 703-4432

May 15, 2008

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document entitled COMMENTS OF THE PEOPLE OF THE STATE OF CALIFORNIA AND THE PUBLIC UTILITIES COMMISSION in Docket No. PHMSA—RSPA—2004—18730, upon the United States Department of Transportation in this proceeding by electronically forwarding the document in WORD and filling out and submitting the Document Submission Form to the U.S.D.O.T.'s electronic docket site (DMS) at: <http://www.regulations.gov> .

Dated at San Francisco, California, this 15th day of May, 2008.

/s/ NANCY SALYER

Nancy Salyer